

## **PRESSURE TRANSMITTER WITH DIAGNOSTICS**

### ABSTRACT OF THE DISCLOSURE

In one embodiment, a pressure transmitter is provided which diagnoses the condition of a primary element and/or an impulse line which connects to a pressure sensor. A difference circuit coupled to the pressure sensor has a difference output which represents the sensed pressure minus a moving average. A calculate circuit receives the difference output and calculates a trained output of historical data obtained during an initial training time. The calculate circuit also calculates a monitor output of current data obtained during monitoring or normal operation of the transmitter. A diagnostic circuit receives the trained output and the monitor output and generates a diagnostic output indicating a current condition.